

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

LISTING OF THE CLAIMS

1. (currently amended) A fibrous assembly comprising:
a first nanofiber that sequesters a first reactive component; and
a second nanofiber that sequesters a second reactive component,
wherein the first and second nanofibers are prepared by an electrospinning or gas-jet method,
wherein at least the first or second nanofiber releases its reactive component when the nanofiber is in the presence of a releasing agent, and
wherein when the at least first or and second fiber releases its nanofibers release their reactive component components, the first and second reactive components react with each other to form a reaction product.
2. (currently amended) The fibrous assembly of claim 1, wherein at least the first or second nanofiber is polymeric.
3. (cancelled)
4. (cancelled)
5. (original) The fibrous assembly of claim 1, wherein at least the first or second reactive component is a particle, a dissolved molecule, a fibrous skeleton that was created by electrospinning, a uniform coating, a ribbon, a tube, a gas-filled pore, a fluid-filled pore, or bound to an ion-exchange-resin bead.
6. (original) The fibrous assembly of claim 1, wherein the reaction product of the first reactive component and the second reactive component is nitric oxide.

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

7. (original) The fibrous assembly of claim 1, wherein the first reactive component is a carboxylic acid and the second reactive component is nitrite.

8. (original) The fibrous assembly of claim 1, wherein the first reactive component is a urethane prepolymer and the second reactive component is a diamine or diol.

9. (original) The fibrous assembly of claim 1, wherein at least the first or second reactive component is bound to an ion-exchange-resin bead.

10. (original) The fibrous assembly of claim 1, wherein the releasing agent is a solvent, a signaling substance, radiation, heat, a mechanical force, a charged particle, an electron, a magnetic particle, a magnetic field, forces from a flowing fluid, hydrostatic pressure, mechanical deformation, or a combination thereof.

11. (original) The fibrous assembly of claim 1, wherein the releasing agent is a solvent.

12. (currently amended) The fibrous assembly of claim 1, wherein at least the first or second nanofiber dissolves or swells in the presence of the releasing agent.

13. (original) The fibrous assembly of claim 5, wherein the fluid is a wax, oil, oligomer-containing fluid, low-molecular-weight liquid, or combination thereof.

14. (original) The fibrous assembly of claim 7, wherein the carboxylic acid is ascorbic acid.

15. (withdrawn – currently amended) A method for preparing a fibrous assembly comprising the steps:

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

preparing a first nanofiber that sequesters a first reactive component;
preparing a second nanofiber that sequesters a second reactive component;
and

incorporating the first and second fiber nanofibers into a fibrous assembly,
wherein the first and second nanofibers are prepared by an electrospinning or gas-
jet method,

wherein at least the first or second nanofiber releases its sequestered reactive component when that nanofiber is exposed to a releasing agent, and

wherein when at least the first or and second sequestered reactive component is components are released from its respective nanofiber, the first and second reactive components react with each other to form a reaction product.

16. (cancelled)

17. (withdrawn – currently amended) The method of claim 15, wherein the first nanofiber is prepared by electrospinning a first electrospinnable solution having a first polymer and a first reactive component; and

wherein the second nanofiber is prepared by electrospinning a second electrospinnable solution having a second polymer and a second reactive component, wherein the second reactive component is reactable with the first reactive component.

18. (withdrawn) The method of claim 15, wherein a reaction product of the first reactive component and the second reactive component is nitric oxide.

19. (withdrawn) The method of claim 15, wherein the first reactive component is a carboxylic acid and the second reactive component is nitrite.

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

20. (withdrawn) The method of claim 15, wherein the first reactive component is a urethane prepolymer and the second reactive component is a diamine or diol.

21. (withdrawn) The method of claim 15, wherein at least the first or second reactive component is bound to an ion-exchange-resin bead.

22. (withdrawn) The method of claim 15, wherein at least the first or second reactive component is a particle, a dissolved molecule, a fibrous skeleton that was created by electrospinning, a uniform coating, a ribbon, a tube, a gas-filled pore, a fluid-filled pore, or bound to an ion-exchange-resin bead.

23. (withdrawn – currently amended) The method of claim 17, wherein electrospinning the first electrospinnable solution results in a first nanofiber that sequesters the first reactive component, and wherein electrospinning the second electrospinnable solution results in a second nanofiber that sequesters the second reactive component.

24. (withdrawn) The method of claim 19, wherein the carboxylic acid is ascorbic acid.

25. (withdrawn) The method of claim 22, wherein the fluid is a wax, oil, oligomer-containing fluid, low-molecular-weight liquid, or combination thereof.

Claims 26 through 34, cancelled.

35. (currently amended) A fibrous assembly comprising:
a first nanofiber that sequesters a first reactive component,
wherein the first nanofiber is prepared by an electrospinning or gas-jet method,

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

~~wherein when the first reactive component is in the presence of a releasing agent, the first reactive component reacts with the releasing agent the first nanofiber releases its reactive component when the nanofiber is in the presence of a releasing agent and the reactive component and the releasing agent react to produce a reaction product.~~

36. (currently amended) The fibrous assembly of claim 35, wherein the first nanofiber is polymeric.

37. (cancelled)

38. (cancelled)

39. (original) The fibrous assembly of claim 35, wherein at least the first reactive component is a particle, a dissolved molecule, a fibrous skeleton that was created by electrospinning, a uniform coating, a ribbon, a tube, a gas-filled pore, a fluid-filled pore, or bound to an ion-exchange-resin bead.

40. (original) The fibrous assembly of claim 35, wherein the reaction product of the first reactive component and the releasing agent is nitric oxide.

41. (original) The fibrous assembly of claim 35, wherein the first reactive component is a carboxylic acid or nitrite.

42. (original) The fibrous assembly of claim 35, wherein the first reactive component is a urethane prepolymer, a diamine, or a diol.

43. (original) The fibrous assembly of claim 35, wherein at least the first reactive component is bound to an ion-exchange-resin bead.

Application Number: 10/554,191
Reply Dated December 6, 2010
Office Action Dated: June 4, 2010

44. (original) The fibrous assembly of claim 35, wherein the releasing agent is a solvent, a signaling substance, radiation, heat, a mechanical force, a charged particle, an electron, a magnetic particle, a magnetic field, forces from a flowing fluid, hydrostatic pressure, mechanical deformation, or a combination thereof.

45. (original) The fibrous assembly of claim 35, wherein the releasing agent is a solvent.

46. (currently amended) The fibrous assembly of claim 35, wherein the first nanofiber dissolves or swells in the presence of the releasing agent.

47. (original) The fibrous assembly of claim 39, wherein the fluid is a wax, oil, oligomer-containing fluid, low-molecular-weight liquid, or combination thereof.

48. (original) The fibrous assembly of claim 41, wherein the carboxylic acid is ascorbic acid.